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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/526,725

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Tsuneo Nakata

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EXAMINER

LAM, DUNG LE

ART UNIT

PAPER NUMBER

2617

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/526,725	<b>Applicant(s)</b> NAKATA ET AL.	
	<b>Examiner</b> DUNG LAM	<b>Art Unit</b> 2617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-110 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 27-30, 48, 50, 70, 90 and 92 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)–(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The Information Disclosure Statement submitted on 3/20/07 has been considered by the examiner (see attached PTO-1449 form).

### ***Specification***

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "A Mobile IP data communication system comprising a mobile router that detects a change in connection status".

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 70, 72, 90 and 92 are rejected under 35 U.S.C. 101 because

The claims are directing toward a “program”. A program does not fall under any of the four statutory subject matters. Thus the claimed invention is directed to non-statutory subject matter.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim(s) **1-4, 27-30, 48, 50, 70, 72, 90, 92** is/are rejected under 35 U.S.C. 103(a) as being unpatentable over **et APA** (US 2006/0182128; Admitted Prior Art) in view of **Tari** (US Pub. No. 20030016636).

5. Regarding claim 1, APA teaches a data communication system comprising a home agent, a correspondent node capable of communicating with the home agent, a mobile router, and a mobile network node capable of communicating with the mobile router, the mobile router comprising:

- a plurality of communication means of a communication service containing a same or different types of services [0014];
- and a transferring means which receives a packet from the mobile network node to the correspondent node, selects usable communication means based on

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information of the control table, and transfers the packet to the home agent ([0014-0015]),

- the home agent comprising ([0005]):
- means for identifying the address assigned to the usable communication means of the mobile router ([0005]);
- a control table which stores the identified address and route information of the address, such that the address and the route information are associated with each other ([0005])
- and transferring means which receives a packet from the correspondent node addressed to the mobile network node, selects an address based on information of the control table, and transfers the packet to the address, wherein a logical line, through which the mobile network node and the correspondent node communicate with each other, is configured by combining lines of the plurality of communication means ([0010]).

However, APA does not explicitly teach a control table which stores an address assigned to the communication means and route information of the communication means, such that the address and the route information are associated with each other. In an analogous art, **Tari** teaches said missing limitation ([93,102]). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine APA's teaching with Tari's teaching of the control table to conveniently route the communications to the proper destination.

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6. Regarding claim 2, APA teaches a data communication system comprising a home agent and a mobile router, the mobile router comprising:

- a plurality of communication means of a communication service containing a same or different types of services [0014];
- and a transferring means which receives a packet from the mobile network node to the correspondent node, selects usable communication means based on information of the control table, and transfers the packet to the home agent ([0014-0015]),
- the home agent comprising ([0005]):
- means for identifying the address assigned to the usable communication means of the mobile router ([0005]);
- a control table which stores the identified address and route information of the address, such that the address and the route information are associated with each other ([0005])
- and transferring means which receives a packet from the correspondent node addressed to the mobile network node, selects an address based on information of the control table, and transfers the packet to the address, wherein a logical line, through which the mobile network node and the correspondent node communicate with each other, is configured by combining lines of the plurality of communication means ([0010]).

However, APA does not explicitly teach a control table which stores an address assigned to the communication means and route information of the communication

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means, such that the address and the route information are associated with each other.

In an analogous art, **Tari** teaches said missing limitation ([93,102]). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine APA's teaching with Tari's teaching of the control table to conveniently route the communications to the proper destination.

7. Regarding claim 3, teaches a data communication system comprising a home agent, a correspondent node capable of communicating with the home agent, a mobile router, and a mobile network node capable of communicating with the mobile router, the mobile router comprising:

a plurality of communication means which communicate with the home agent [14];

and means for receiving a packet from the mobile network node addressed to the correspondent node, selecting at least one of the communication means based on information of the control table, and transferring the packet to the home agent [10],

the home agent comprising [05]:

means for identifying an address assigned to usable communication means of the mobile router [5];

a control table which stores route information containing the identified address;

and means for receiving a packet from the correspondent node addressed to the mobile network node, selecting at least one address based on information of the

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control table, and transferring the packet to the address, wherein a logically multiplexed line, through which the mobile network and the correspondent node communicate with each other, is configured by combining the plurality of communication means between the mobile router and the home agent ([10]).

However, APA does not explicitly teach a control table which stores an address assigned to the communication means and route information of the communication means, such that the address and the route information are associated with each other. In an analogous art, **Tari** teaches said missing limitation ([93,102]). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine APA's teaching with Tari's teaching of the control table to conveniently route the communications to the proper destination.

8. Regarding claim 4, APA and Tari teach the data communication system according to claim 2, wherein the mobile router comprises:

means for detecting a change in connection status of the communication means currently in use ([0093,0102]);

and means for notifying the home agent of the change in connection status and an address assigned to the communication means, and the home agent comprises means for updating, based on the notification, information in the control table that manages an address of the communication means of the mobile router ([93,102]).



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9. Regarding claim 27 and 28, they are subset of claim 1. Therefore, they are rejected for the same reasons as claim 1.

10. Regarding claim 29 and 30, they are program claims that correspond to claims 2 and 4. Therefore, they are rejected for the same reasons as claims 2 and 4 respectively.

11. Regarding claim 48 and 50, they are program claims that correspond to claims 2 and 4. Therefore, they are rejected for the same reasons as claims 2 and 4 respectively.

12. Regarding claim 70 and 72, they are program claims that correspond to claims 2 and 4. Therefore, they are rejected for the same reasons as claims 2 and 4 respectively.

13. Regarding claim 90 and 92, they are program claims that correspond to claims 2 and 4. Therefore, they are rejected for the same reasons as claims 2 and 4 respectively.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DUNG LAM whose telephone number is (571) 272-6497. The examiner can normally be reached on M - F 9 - 5:30 pm, Every Other Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Harper can be reached on (571) 272-7605. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VINCENT P. HARPER/  
Supervisory Patent Examiner, Art Unit 2617